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10/551,651

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Tatsuya Shinkawa

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EXAMINER

SUAREZ, ERNESTO A

ART UNIT

PAPER NUMBER

3653

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/551,651

Applicant(s)

SHINKAWA ET AL.

Examiner

ERNESTO SUAREZ

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 13-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-12, are drawn to a recording medium discharge mechanism provided with a discharge space.

Group II, claim(s) 13-15, are to a method of operating a side wall member of a recording medium discharge mechanism of an imaging apparatus.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The method of Group II is not limited to use only within the recording medium discharge mechanism of group I but also applicable to various imaging apparatus having a recording medium discharge mechanism and side wall member.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Newly submitted claims 13-15 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claims 13-15 are directed towards a method to operate a side wall member of a recording medium discharge mechanism of an imaging apparatus, the claimed method can be applied to operate a side wall member in any recording medium discharge mechanism of any imaging apparatus.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 13-15 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3, 4, 8, 11 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 13-18, state "wherein the side wall member is arranged in the laid flat state automatically when the recording medium is longer in the recording medium discharge direction than the recording medium placement surface, and wherein the side wall member is arranged to be in the upright state automatically when the recording medium is not longer in the recording medium discharge direction than the recording medium placement surface." It is unclear and indefinite how the side wall member is arranged in the laid flat state and upright state "automatically". The claim seems to be lacking significant structural elements to enable the side wall member to be arranged in the laid flat state and upright state "automatically". Claim 8, lines 7-15, state the same limitations and cover the same scope in slightly different language, the rejection of claim 1 also applies to claim 8.

Claim 3 recites "wherein the side wall member is configured such that when a recording medium has been discharged to the discharge space in the upright state that closes the open portion, the upright state changes to the laid flat state only upon receiving an external force from the recording medium." The "external force from the recording medium" is ambiguous, the external force from the recording medium is dependent upon the stiffness and compressive strength

of a recording medium, thus making the moment of force required to change the side wall member from an upright state to a laid flat state ambiguous and indefinite due to its dependency on the type and specifications of the recording medium providing the force.

Claim 4, recites "wherein the side wall member is configured to go into the laid flat state prior to a discharge operation of a recording medium only when a discharge direction length dimension of the recording medium to undergo image formation in an image-forming portion is longer than a length of a recording medium placement surface of the discharge space", it is unclear how the side wall member is configured to go into the laid flat state prior to a discharge operation and how the length dimension of the recording medium is measured, the claim seems to be lacking of significant structural elements to enable the operations of this claim to take place.

Claim 11, lines 2-6, state "an active side wall moving mechanism arranged to place the side wall member in either the upright closed state or the laid flat open state based on the length in the recording medium discharge direction of the recording medium prior to the recording medium being discharged from the imaging system." It is unclear how the active side wall mechanism decides to either move the side wall member to either the upright closed state or the laid flat open state and how the length of the recording medium is measured and then

used as a basis to determine movement of the side wall member to either the upright closed state or the laid flat open state.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashimizu et al. (US Patent No. 5,743,518) in view of Kondo et al. (US Patent No 5,897,113).

Regarding claim 1, Takashimizu et al. discloses a recording medium discharge mechanism provided with a discharge space that is positioned between an original capturing portion arranged in a device upper portion and a feeding portion arranged in a device lower portion and that opens laterally to a downstream side in a recording medium discharge direction, comprising:

A side wall member (513, 512) positioned at an open portion of the downstream side in the recording medium discharge direction, (Figs. 2-3)

Wherein the side wall member is arranged to be capable of moving between an upright state that closes the open portion and a laid flat state in which a recording medium placement surface (510) for placing a discharging

recording medium is extended toward the downstream side in the recording medium discharge direction. (C12/L37-43)

Takashimizu et al. further discloses wherein the side wall member is arranged to be in the laid flat state when the recording medium is longer in the recording medium discharge direction than the recording medium placement surface, and wherein the side wall member is arranged to be in the upright state automatically when the recording medium is not longer in the recording medium discharge direction than the recording medium placement surface. (C12/L37-63)

Takashimizu et al. does not expressly disclose wherein the side wall member is arranged to be in the laid flat state or upright state automatically. Kondo et al. teaches side wall members (11, 62) arranged to be in a laid flat state and an upright state automatically (C4/L33-38, C8/L33-42) for the purpose of satisfactorily guiding and receiving originals discharged from a discharge port (C5/L31-34) and to increase/decrease the external shape while receiving large paper sheets (C8/L52-57).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Takashimizu et al. disclosed side wall member to be arranged in the laid flat state and in the upright state through automation as taught by Kondo et al, for the purpose of satisfactorily guiding and receiving a recording medium, to increase/decrease the external shape while receiving large

paper sheets and further eliminating user dependency in the operations of the side wall member and recording medium discharge mechanism.

Regarding claim 2, the recitation "*wherein the recording medium placement surface, which is a bottom surface of the discharge space, is set such that a discharge direction length thereof is shorter than a discharge direction length of a largest recording medium among a plurality of types of recording media used in an image forming apparatus*", it has been held that expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim furthermore inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims. See MPEP 2115

Regarding claim 3, the recitation "*wherein the side wall member is configured such that when a recording medium has been discharged to the discharge space in the upright state that closes the open portion the upright state changes to the laid flat state only upon receiving an external force from the recording medium*", it has been held that expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim, furthermore inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims. See MPEP 2115

Regarding claim 4, Takashimizu et al, as modified above discloses wherein the side wall member is configured to go into the laid flat state prior to a discharge operation of a recording medium only when a discharge direction length dimension of the recording medium to undergo image formation in an image-forming portion is longer than a length of a recording medium placement surface of the discharge space. [(Takashimizu, C12/L37-63) & (Kondo, C13/L17-19)]

Regarding claim 5, the recitation "*the recording medium discharge mechanism which is configured such that, when a recording medium discharge direction length dimension of a recording medium placement surface of the discharge space is given as L1, a discharge direction length dimension of a largest recording medium among a plurality of types of recording media used in an image forming apparatus is given as L2, and an extension length dimension toward a downstream side in the recording medium discharge direction when the side wall member has been put into the laid flat state is given as L3, $L3 \leq L2 - L1$* ", it has been held that expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim, furthermore inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims. See MPEP 2115

Regarding claim 7, Takashimizu et al, as modified above discloses an original capturing portion (400) arranged at an upper portion of the recording medium discharge mechanism, and a feeding portion (220, 210) arranged at a lower portion of the recording medium discharge mechanism. (Takashimizu, figs. 1, 4)

Regarding claim 8, Takashimizu et al. discloses a recording medium discharge mechanism, comprising:

A recording medium placement surface (510) arranged to receive a recording medium discharged from an image forming system of an imaging apparatus (Figs. 2-3)

A side wall member (512, 513) positioned at an open end of the recording medium placement surface on a downstream side in a recording medium discharge direction, (Figs. 2-3)

Wherein the side wall member is arranged to be in a substantially upright closed state when a length of the recording medium discharged from the image forming system is less than a length of the recording medium placement surface in the recording medium discharge direction, and wherein the side wall member is arranged to be in a substantially laid flat open state when the length of the recording medium discharged from the image forming system is greater than the

length of the recording medium placement surface in the recording medium discharge medium. (C12/L37-63)

Takashimizu et al. does not expressly disclose wherein the side wall member is arranged to be in the substantially laid flat open state or substantially closed upright state automatically. Kondo et al. teaches side wall members (11, 62) arranged to be in a laid flat state and an upright state automatically (C4/L33-38, C8/L33-42) for the purpose of satisfactorily guiding and receiving originals discharged from a discharge port (C5/L31-34) and to increase/decrease the external shape while receiving large paper sheets (C8/L52-57).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Takashimizu et al. disclosed side wall member to be arranged in a substantially upright closed state and substantially laid flat open state through automation, as taught by Kondo et al, for the purpose of satisfactorily guiding and receiving a recording medium, to increase/decrease the external shape while receiving large paper sheets and further eliminating user dependency in the operations of the side wall member and recording medium discharge mechanism.

Regarding claim 9, Takashimizu et al, as modified above discloses wherein the side wall member is arranged so that when in the upright closed state, the side wall member does not extend beyond the recording medium

placement surface in the recording medium discharge direction. (Figs. 2-3, Takashimizu)

Regarding claim 10, Takashimizu et al, as modified above further discloses a biasing member positioned to bias the side wall member to be in the upright closed state. [(C5/L35-42, C8/L10-42), Kondo]

Regarding claim 11, Takashimizu et al, as modified above further discloses an active side wall moving mechanism [(C5/L35-42, C8/L10-42), Kondo] arranged to place the side wall member in either the upright closed state or the laid flat open state. Regarding the recitation, *"based on the length in the recording medium discharge direction of the recording medium prior to the recording medium being discharged from the imaging system"*, it has been held that expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim, furthermore inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims. See MPEP 2115

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takashimizu et al. (US Patent No. 5,743,518) in view of Kondo et al. (US Patent No 5,897,113) and further in view of Ishikawa et al. (US Patent No. 4,838,534).

Takashimizu et al, as modified above does not expressly disclose wherein the side wall member is structured using a transparent member or a semitransparent member.

Ishikawa et al. discloses wherein a side wall member (85) is structured using a transparent member or a semitransparent member such that the stack of paper on the table can be observed when it is closed. (column 15, lines 16-19)

At the time of the invention it would have been obvious to a person of ordinary skill in the art to further modify Takashimizu et al. side wall member to be structured using a transparent member or a semitransparent member, as taught by Ishikawa et al. such that the stack of paper can be observed when the side wall member is in an upright closed position.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takashimizu et al. (US Patent No. 5,743,518) in view of Kondo et al. (US Patent No 5,897,113) and further in view Cho (US Patent No. 5,974,283).

Takashimizu et al, as modified above does not expressly disclose wherein the active side wall moving mechanism comprises a rod attached to the side wall member; and a solenoid attached to the rod and arranged to move the rod.

Cho teaches a rod attached to a side wall member (30) and a solenoid (13) attached to the rod and arranged to move the rod. (Figs. 2-3)

At the time of the invention it would have been obvious to one of ordinary skill to replace Takashimizu et al, active side wall moving mechanism with a rod attached to the side wall member and a solenoid attached to the rod and arranged to move the rod, as taught by Cho for the purpose of having a fixed movement interval and reducing the number of parts in the moving mechanism.

Response to Arguments

Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERNESTO SUAREZ whose telephone number is (571) 270-5565. The examiner can normally be reached on Mon-Thurs, 10-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571)272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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